



3.7.7 Congenital Malformations, Transplantation and Oncological Surgery

1

Introduction

2

Executive summary

3

Research areas and groups

4

Associated clinicians

Publications: 29 | Q1: 16

COMPOSITION

Francisco Hernández Oliveros.

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- **Maria Virginia Amesty Morello.** Médico Adjunto en Cirugía Pediátrica. Hospital Universitario La Paz
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- **Álvaro González Rocafort.** Facultativo Especialista de Cirugía Pediátrica. Hospital Universitario Infantil La Paz
- **Juan Carlos López Gutiérrez.** Jefe de Servicio de Cirugía Pediátrica. Hospital Universitario Infantil La Paz
- **Ana Lourdes Luis Huertas.** Facultativo Especialista en Cirugía Pediátrica. Hospital Universitario La Paz
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- **Jesús Peralta Calvo.** Facultativo Especialista de Área en Oftalmología Infantil. Hospital Universitario La Paz
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- **Paloma Triana Junco.** Facultativo Especialista de Área en Cirugía Pediátrica. Hospital Universitario La Paz
- **María Teresa Vallejo Cremades.** Jefe de Laboratorio Inmunohisto-química (Contrato de Estabilización de Técnicos de Apoyo). FIBHULP
- **Leandro Vecchio Dezillio.** Investigador Postdoctoral. FIBHULP
- **Alejandra Vilanova Sánchez.** Médico Interno Residente en Cirugía Pediátrica. Hospital Universitario La Paz

STRATEGIC OBJETIVES

- General objectives for the next 5 years
- Anesthesia, pain management and perioperative intensive care: Develop new strategies to improve safety and efficacy in anesthetic procedures, and investigate the multiple problems of pain management and anesthetic support.
- Vascular anomalies: to investigate the genetic and molecular mechanisms involved in the pathogenesis of vascular anomalies and to evaluate new treatments.
- Cardiovascular surgery: Evaluate different organ perfusion devices and develop new strategies for graft perfusion.
- Congenital malformations: Acquire knowledge about the cellular and molecular mechanisms of malformations using animal models, organ and cell cultures, and genetically modified animals.
- Ophthalmological pathology: To investigate the genetic and molecular mechanisms involved in the pathogenesis of ocular malformations and rare eye diseases.
- Transplantation: Investigating new strategies for graft tolerance/rejection prevention and analyzing the impact of donation after circulatory death with normothermic perfusion in pediatric transplantation. This also includes conditions leading to organ failure, such as intestinal rehabilitation (intestinal transplantation), liver tumors (liver transplantation), and severe uropathies (kidney transplantation).
- Specific scientific objectives for the next 5 years
- Planned research projects
- Anesthesia: We will focus on the safe transfusion of blood products and metabolic monitoring during complex surgical procedures. We will also include any quality initiatives within our reach.
- Vascular anomalies: We will continue our recent project focused on the long-term safety and efficacy of alpelisib in patients with PIK3CA-related overgrowth spectrum (PROS); and we will continue our contribution to the lymphatic malformation program.
- Cardiovascular Surgery: We plan to begin our research on mitochondrial transplantation to improve recovery after myocardial infarction. We will also continue our hemodynamic evaluation of ex vivo perfusion devices. In the clinic, we will prospectively analyze the heart transplant program recently developed by DCD.
- Congenital malformations: We will delve deeper into our study of fetal alcohol syndrome. More specifically, our goal is to further investigate the role of antioxidant agents. We will also continue our research on prenatal instrumental manipulation in spina bifida in collaboration with the research group at Cincinnati Children's Hospital.
- Ocular pathology: We will continue our open line of research into genetic study in congenital non-syndromic bilateral cataracts and myopia with or without nystagmus.
- Transplantation: Finally, as the only group involved in pediatric intestinal transplantation in Spain, we will also continue our efforts to improve graft viability, deepen our understanding of rejection and graft-versus-host disease (GVHD), and promote tolerance through various cell therapies. All this work in animal models will be complemented by human studies in liver and intestinal transplantation.



1 Introduction

2 Executive summary

3 Research areas and groups

4 Associated clinicians

RESEARCH LINES

- Anesthesia, pain management and perioperative intensive care: Develop new procedures to improve the safety and effectiveness of anesthetic procedures, and investigate the multiple problems of pain management and anesthetic support.
- Vascular anomalies: Investigate the genetic and molecular mechanisms involved in the pathogenesis of vascular anomalies and evaluate new targeted therapies.
- Cardiovascular surgery: Evaluate different organ perfusion devices and develop new strategies for graft perfusion.
- Congenital malformations: Acquire knowledge about the cellular and molecular mechanisms of malformations using animal models, organ and cell cultures and, eventually, genetically modified animals.
- Ophthalmological pathology: To investigate the genetic and molecular mechanisms involved in the pathogenesis of ocular malformations and rare eye diseases.
- Transplantation: Investigate new strategies for graft tolerance/rejection prevention and analyze the impact of donation after circulatory death with normothermic reperfusion in pediatric transplantation. Additionally, our research would include the treatment of conditions leading to organ failure, such as intestinal rehabilitation (intestinal transplantation), liver tumors (liver transplantation), and severe uropathies (kidney transplantation).
- Transplantation: To investigate new strategies for graft tolerance/avoidance of rejection and to analyze the impact of donation after circulatory death with normothermic reperfusion in pediatric transplantation. Additionally, the management of the conditions leading to organ failure would be included in our topics, like intestinal rehabilitation (intestinal transplantation), liver tumours (liver transplantation) and severe uropathies (renal transplantation).

RESEARCH ACTIVITY

Doctoral Theses

- **Cabezudo Ballesteros S.** Evaluación de un dispositivo de CPAP de Alto Flujo como estrategia de "Weaning" de ventilación mecánica prolongada en pediatría [dissertation]. Madrid: UAM: 2025(07/03/2025). Director: Reinoso Barber F, Sanabria Carretero P.

Publications

- **Alfonso JCM, Barbosa-Velásquez S, Delgado-Miguel C, Caballero AM, Hernández-Martín S, Martínez AP, Irazábal MCY.** Exploring the utility of cellular indices in the diagnosis of ulcerative colitis. *Gastroent Hepat-Barc.* 2025; 48(8): 502349. Article. IF: 2.0; Q3
- **Ballesteros SC, Carretero PS, Parga LC, Vega AM, García LL, Barbero FR.** Clinical study on the predictive utility of high flow CPAP in weaning

from prolonged mechanical ventilation in critical paediatric surgery patients. *Rev Esp Anesthesiol Reanim.* 2025; 72(2): 501658. Article. IF: 1.3; Q3

- **Basilio MS, Rodríguez-Laguna L, Junco PT, Martínez-Glez V, Ramírez-Amoros C, Delgado-Miguel C, Rodríguez-Arias JP, López-Gutiérrez JC.** Association of somatic KRAS variants with osteolysis in arteriovenous malformations. *Eur J Pediatr Surg.* 2025; 35(5): 362-8. Article. IF: 1.8; Q2
- **Celemin EF, Miguel CD, Domene PO, López JDS, Oreilly MH, Cabezudo FS, López JMG, Nieto ALP.** Improving obesity treatment: metabolic and bariatric surgery plus body contour surgery. *Surg Obes Relat Dis.* 2025; 21(11): 1241-5. Article. IF: 3.2; Q1
- **Delgado-Miguel C, Arredondo-Montero J, Moreno-Alfonso JC, Garavis Montagut I, San Basilio M, Hernández I, Carrera N, Martínez**

L, Iraola E, Ruiz Jiménez I, Aguado Roncero P, Fuentes E, Díez R, Hernández-Oliveros F. The role of neutrophil-to-lymphocyte ratio as a predictor of orchiectomy or testicular atrophy after torsion in children: a multicentric study. *J Pers Med.* 2025; 15(7): 310. Article. Not Indexed

- **Delgado-Miguel C, Arredondo-Montero J, Moreno-Alfonso JC, Montagut IG, Rodríguez M, Jiménez IR, Carrera N, Roncero PA, Fuentes E, Díez R, Hernández-Oliveros F.** Indocyanine green fluorescence navigation in pediatric hepatobiliary surgery: systematic review. *Children (Basel).* 2025; 12(7): 950. Review. IF: 2.6; Q1
- **Delgado-Miguel C, Camps J, Montagut IG, Díez R, Arredondo-Montero J, Hernández-Oliveros F.** Robotic-assisted vs. laparoscopic splenectomy in children: a systematic review and up-to-date meta-analysis. *J Pers Med.* 2025; 15(11): 522. Review. Not Indexed
- **Delgado-Miguel C, Camps JI.** Robotic surgery in newborns and infants under 12-months: Is it feasible? *Asian J Surg.* 2025; 48(10): 6032-6. Article. IF: 5.2; D1
- **Delgado-Miguel C, Fuentes E, Aguado P, Díez R.** Gynecomastia outpatient surgical treatment in children without closed-suction drain placement: is it safe and effective? *Children (Basel).* 2025; 12(11): 1571. Article. IF: 2.6; Q1
- **Delgado-Miguel C, Fuentes E, Aguado P, Díez R.** The use of 8-mm powered articulation endostapler for sublobar resection in children. Preliminary Case Series. *J Laparoendosc Adv S.* 2025; 35(3): 266-70. Article. IF: 1.1; Q3
- **Delgado-Miguel C, Fuentes E, Ruiz-Jiménez I, Carrera N, Aguado P, Díez R.** Suprascrotal approach for testicular prosthesis placement in children after testicular torsion. *Arch Esp Urol.* 2025; 78(10): 1362-7. Article. IF: 1.2; Q4
- **Delgado-Miguel C, Gómez LF, Morán AG, Miguel-Ferrero M, Díaz M, López-Gutiérrez JC.** Neutrophil-to-lymphocyte ratio as a predictor of short- and long-term complications in pediatric burns. *Ital J Pediatr.* 2025; 51(1): 10. Article. IF: 3.5; Q1
- **Delgado-Miguel C, Mejía R, Amesty V, Rivas S, Lobato R, López-Pereira P, Martínez-Urrutia MJ.** Dorsal dartos flap for buried penis treatment: surgical technique and long-term outcomes. *Pediatr Surg Int.* 2025; 41(1): 274. Article. IF: 1.8; Q2

Pediatr Surg Int. 2025; 41(1): 274. Article. IF: 1.8; Q2

- **Delgado-Miguel C, Reparaz L, Clarkson W, Desai K, Camps JI.** Robotic-assisted surgery in pediatric gynecology: preliminary initial outcomes. *J Gynecol Surg.* 2025; 41(6): 265-70. Article. IF: 0.3; Q4
- **Estefanía-Fernández K, Triana P, Ramírez-Amorós C, Gaspar-Pérez M, Muñoz-Serrano AJ, Velayos M, San Basilio M, Buitrago NM, Parrón M, Andrés A, Hernández-Oliveros F, Gutiérrez JCL.** Non-involuting congenital hepatic hemangioma: lessons from a case series. *Children (Basel).* 2025; 12(7): 893. Article. IF: 2.6; Q1
- **Gómez-García E, Granados M, Saceda JM, Moreno MN, Zamorano J, Cebrián JL, Noval S.** Role of computer-assisted surgery in the management of pediatric orbital tumors: insights from a leading referral center. *Children (Basel).* 2025; 12(12): 1649. Article. IF: 2.6; Q1
- **Li WH, Bokkers RPH, Wildhaber BE, Calinescu AM, Ricoeur A, Marra P, Bravi M, Pinelli D, Minetto J, Dip M, Sierre S, de Santibañes M, Ardiles V, Uno JW, Hardikar W, Bates S, Goh L, Aldrian D, Seisenbacher J, Vogel GF, Neto JS, da Fonseca EA, Costa CM, Ferreira CT, Nader LS, Farina MA, Dajani KZ, Parente A, Bigam DL, Liang TB, Bai XL, Xiang J, Gonsorcikova L, Fronck J, Bohus S, Franchi-Abella S, Gonzales E, Guérin F, Junge N, Baumann U, Richter N, Hartleif S, Sturm E, Rajakannu M, Palaniappan K, Rela M, Pawaria A, Rajakrishnan H, Surendran S, Kumar M, Agarwal S, Gupta S, Asthana S, Sakpal M, Avalareddy A, Spada M, Monti L, Alterio T, Yanagi Y, Uchida H, Komine R, Evans H, Carr-Boyd P, Duncan D, Stefanowicz M, Latka-Grot J, Kolesnik A, Broering DC, Raptis DA, Marquez KAH, Mali V, Aw M, Beretta M, van der Schyff F, Quintero J, Mercadal-Hally M, Molino-Gahete JA, Andres AM, Hernandez-Oliveros F, Remacha EF, Casswall T, Jorns C, Delle M, Gupta GL, Sharif K, McGuirk SP, Superina R, Caicedo JC, Jaramillo C, Bitterfeld L, Kastenber Z, Shah AA, Domenick B, Acord MR, Mazariegos G, Soltys K, Dinorcja J, Patel P, Florman S, Buchholz BM, Herden U, Fischer L, Dierckx RAJO, Hartog H, van der Doef HPJ.** Management of hepatic artery thrombosis and stenosis



3.7. Maternal Infant Child and Youth Research

1 Introduction

2 Executive summary

3 Research areas and groups

4 Associated clinicians

- after pediatric liver transplantation: Variability and agreement in management practices. *Liver Transplant.* 2025; 31(12): 1533-44. Article. IF: 3.8; Q1
- **Lledín MD, Parrón-Pajares M, Andrade-Guerrero D, Quilés-Blanco J, Morais A, Hernández-Oliveros F, Frauca E, Botella-Carretero JI.** Effect of muscle mass on catch-up growth after liver transplant in infants with biliary atresia. *Pediatr Transplant.* 2025; 29(8): e70219. Article. IF: 1.4; Q3
 - **Moratilla-Lapeña L, Sarmiento M, Ramírez C, San Basilio M, Delgado-Miguel C, Álvarez M, Pascual I, Vilanova-Sánchez A, Sánchez-Galán A.** Surgical treatment of external hemorrhoids in pediatric patients. *Chirurgia-Ital.* 2025; 38(6): 449-51. Article. IF: 0.1; Q4
 - **Moreno-Alfonso JC, del Campo-Pedrosa R, Delgado-Miguel C, Arregui MI, Caballero AM, Martínez AP, Irazábal MCY.** Comparison of two combined models of cellular indices and food allergies for the screening of pediatric eosinophilic esophagitis. *Rev Esp Enferm Dig.* 2025; 117(12): 796-7. Letter. IF: 4.8; Q1
 - **Moreno-Alfonso JC, Delgado-Miguel C, Caballero AM, Martínez AP, Irazábal MCY.** Clinical-pathological correlation of endoscopic findings in eosinophilic esophagitis in the pediatric population. *Rev Esp Enferm Dig.* 2025; 117(12): 765-7. Letter. IF: 4.8; Q1
 - **Moreno-Alfonso JC, Delgado-Miguel C, Caballero AM, Martínez AP, Irazábal MCY.** Correlation of endoscopic findings with histological alterations in pediatric ulcerative colitis. *Rev Esp Enferm Dig.* 2025; 117(12): 769-70. Letter. IF: 4.8; Q1
 - **Moreno-Alfonso JC, Delgado-Miguel C, Caballero AM, Martínez AP, Irazábal MCY.** To the editor in response to the letter by Peksöz et al. regarding diagnostic value of the derived neutrophil-to-lymphocyte ratio for acute appendicitis. *Anz J Surg.* 2025; 95(10): 2234-5. Letter. IF: 1.5; Q3
 - **Moreno-Alfonso JC, Delgado-Miguel C, Martín SH, Caballero AM, Martínez AP, Irazábal MCY.** Clinical manifestations of Meckel's diverticulum and analytical distinction with appendicitis: a 20-year diagnostic study. *Rev Esp Enferm Dig.* 2025; 117(11): 692-4. Letter. IF: 4.8; Q1
 - **Papa-Gobbi R, Stringa P, Gentilini MV, Ivanoff I, Machuca M, Arreola NM, Serradilla J, Estefanía-**

- Fernández K, Talayero P, Velayos M, Sánchez-Zapardiel E, Gondolesi G, Andrés-Moreno A, Rumbo M, Hernández-Oliveros F.** Low regulatory T-cells frequency is associated with graft rejection after small bowel transplantation: Clinical and experimental evidence. *Plos One.* 2025; 20(1): e0307534. Article. IF: 2.8; Q2
- **Perez-Martínez A, Rodrigo AL, Boluda ER, Martínez BG, Sánchez AA, Oliveros FH.** Tabeledeleucel in post-transplant epstein-barr virus-associated lymphoproliferative disease: patient and oncologist perspectives. *Adv Ther.* 2025; 42(7): 3011-9. Editorial Material. IF: 4.7; Q1
- **Pruna A, Reinoso-Barbero F, Jakobsson J, Landoni G.** Volatile anesthetics and greenhouse effect: A clinical perspective. *Anesth Analg.* 2025; 141(2): e21-2. Letter. IF: 4.7; Q1
- **Seeger P, Preukschas AA, Lücke J, Sabihi M, Stringa P, Lausada N, Moreira J, Dezillio LEV, Serradilla J, Moreno AMA, Oliveros FH, Bennemann S, Machicote A, Zazara DE, Papazoglou ED, Mercanoglu B, Ghadban T, Netwlich MF, Nickel F, Mann O, Hackert T, Gentilini MV, Oh J, Oldani G, Chartier-Plante S, Harriman D, Oldhafer KJ, Huber S, Gondolesi GE, Giannou AD.** Revolutionizing small bowel transplantation in mice and rats: A cutting-edge dry-lab simulation model. *Curr Prob Surg.* 2025; 73: 101917. Review. IF: 3.1; Q1
- **Torres-Luna R, Soto MCS, Reinoso-Barbero F.** Analgesic efficacy of clinical hypnosis in pediatric patients following orthopedic surgery. *An Pediatr.* 2025; 102(4): 503831. Article. IF: 2.6; Q1

Research projects

- **Andrés Moreno AM, Hernández Oliveros F.** Influencia del hígado en el injerto intestinal. Estudio de su papel protector de rechazo. Sociedad Madrileña de Trasplantes. 2023-Ongoing. **Managment centre:** FIBHULP
- **Andrés Moreno AM.** Desarrollo y aplicación terapéutica de un sistema de perfusión normotérmica extracorpórea en trasplante intestinal: el final de la edad de hielo (PI23/01189). ISCIII. 2024-2026. **Managment centre:** FIBHULP
- **Hernández Oliveros F.** ERN TransplantChild 2023-2027. UE. 2023-2027. **Managment centre:** FIBHULP

- **Hernández Oliveros F.** Prevención del rechazo mediante transferencia adoptiva de linfocitos T regulatorios en un modelo experimental de trasplante intestinal (PI21/01332). ISCIII. 2022-2026. **Managment centre:** FIBHULP
- **Hernández Oliveros F.** TRASPLANTAPP: la primera red de comunicación para niños y adolescentes trasplantados. Fundación MAPFRE. 2020-Ongoing. **Managment centre:** FIBHULP
- **Hernández Oliveros F.** TRASPLANTAPP: la primera red de comunicación para niños y adolescentes trasplantados. Fundación Mutual Médica. 2020-Ongoing. **Managment centre:** FIBHULP
- **Hernández Oliveros F, Vecchio Dezillio LE.** Estudio clínico y experimental de inducción de tolerancia operacional mediante la combinación de trasplante de progenitores hematopoyéticos y trasplante de órgano sólido. DUALGRAFT (AP-16022/2024). Fundación Mutua Madrileña. 2024-2027. **Managment centre:** FIBHULP
- **López Gutiérrez JC, Triana Junco P.** Estudio genético y funcional en pacientes con enfermedades de Gorham-Stout (GSD) y anomalías linfáticas generalizadas (GLA). The Lymphatic Malformation Institute. 2018-Ongoing. **Managment centre:** FIBHULP
- **López Gutiérrez JC.** Trasplante de unidades foliculares en niños con alopecia cicatricial. Proyecto experimental con traslación clínica (PI23/01464). ISCIII. 2024-2026. **Managment centre:** FIBHULP
- **Luis Huertas AL.** Cirugía Guiada Por Fluorescencia: Realidad aumentada y navegación intraoperatoria con verde de indocianina en el cáncer infantil. Estudio de viabilidad clínica y experimental. FIBHULP. 2024-2026. **Managment centre:** FIBHULP
- **Noval Martín S.** Protocolo para el diagnóstico precoz de causas sensoriales ocultas de Nistagmus infantil (AI-2024-061). Federación Española de Enfermedades Raras. 2025-2026. **Managment centre:** FIBHULP
- **Triana Junco P.** Biopsia líquida en malformaciones arteriovenosas (PI24/00250). ISCIII. 2025-2027. **Managment centre:** FIBHULP

Clinical trials

- **Hernández Oliveros F.** Ensayo de fase I, unicéntrico y abierto para evaluar la seguridad y tolerabilidad de la infusión diferida de un injerto hematopoyético deplecionado de células

t naïve con linfocitos t de memoria en receptores de trasplante de órganos sólidos, incluido en el estudio clínico y experimental de inducción de tolerancia operacional mediante la combinación de trasplante de progenitores hematopoyéticos y trasplante de órgano sólido.

Type/Phase: I

Sponsored by: Hernández Oliveros, Francisco.

Signature date: 03/06/2025

- **López Gutiérrez JC.** A phase 2 study of mutant-selective pi3ka inhibitor, RLY-2608, in adults and children with pik3ca related overgrowth spectrum and malformations driven by pik3ca mutation.

Type/Phase: II

Sponsored by: Relay Therapeutics, Inc.

Signature date: 05/09/2025

- **López Gutiérrez JC.** Epik-p4: estudio de fase II de un único grupo que evalúa la eficacia, la seguridad y la farmacocinética de alpelisib (bvl719) en pacientes pediátricos y adultos con síndrome de sobrecrecimiento asociado a pik3ca.

Type/Phase: II

Sponsored by: Novartis Pharma Services Ag.

Signature date: 21/11/2025

- **Noval Martín S.** Efficacy and safety assessment of t1695 ophthalmic suspension, versus ciclosporin ophthalmic emulsion, in participants with moderate to severe vernal keratoconjunctivitis (vk).

Type/Phase: II

Sponsored by: Sas Laboratoires Thea.

Signature date: 25/09/2025

- **Noval Martín S.** Un estudio adaptativo de fase III, aleatorizado, doble ciego, de dosis múltiples, de grupos paralelos controlados con placebo para evaluar la eficacia de la atropina para tratar la progresión de la miopía en niños/as y adolescentes de 3 a menos de 18 años de edad (estudio moderato).

Type/Phase: III

Sponsored by: Ocus Innovation Ireland Limited.

Signature date: 01/03/2025

Patents and trademarks

- **Hernández Oliveros F, Nana Gómez Mayoral N, Raya González L, Guijarro Fernández E, authors; FIBHULP, HePA, U-TAD, Guijarro Fernández E, assignees.** Trademark name: VTR Virtual Transplant Reality; CM18.000.131; 2018 December 14.